IN THE CLAIMS

1. (Currently amended) A method for removing noise from acoustic signals, comprising:

receiving ~~a plurality of~~ at least two acoustic signals~~, wherein receiving the plurality of acoustic signals includes receiving using a plurality of independently located microphones~~ using at least two acoustic microphones positioned in a plurality of locations;

receiving a voice activity signal that includes information on ~~the~~ vibration of human tissue associated with human voicing activity of a user;

generating a voice activity detection (VAD) signal using the voice activity signal;

generating at least one ~~first~~ transfer function representative of ~~the plurality of acoustic signals upon determining that voicing information is absent from the plurality of acoustic signals for at least one specified period of time~~ a ratio of energy of the acoustic signal received using at least two different acoustic microphones of the at least two acoustic microphones when the VAD indicates that user voicing activity is absent; and

removing acoustic noise from ~~the plurality of~~ at least one of the acoustic signals ~~using the first transfer function to produce at least one denoised acoustic data stream~~ by applying the transfer function to the acoustic signals and generating denoised acoustic signals.

2. (Currently amended) The method of claim 1, wherein removing noise further comprises:

generating at least one second transfer function representative of ~~the plurality of acoustic signals upon determining that voicing information is present in the plurality of acoustic signals for the at least one specified period of time~~ a ratio of energy of the acoustic signal received when the VAD indicates that user voice activity is present; and

removing noise from the ~~plurality of~~ acoustic signals using at least one combination of the at least one ~~first~~ transfer function and the at least one second transfer

function to ~~produce at least one denoised acoustic data stream~~ generate the denoised acoustic signals.

3. (Currently amended) The method of claim 1, wherein the ~~plurality of~~ acoustic signals include at least one reflection of at least one associated noise source signal and at least one reflection of at least one acoustic source signal.

Claims 4 and 5 (Canceled).

6. (Currently amended) The method of claim 1, wherein generating the at least one ~~first~~ transfer function comprises recalculating the at least one ~~first~~ transfer function during at least one prespecified interval.

7. (Original) The method of claim 2, wherein generating the at least one second transfer function comprises recalculating the at least one second transfer function during at least one prespecified interval.

8. (Currently amended) The method of claim 1, wherein generating the at least one ~~first~~ transfer function comprises use of at least one technique selected from a group consisting of adaptive techniques and recursive techniques.

9. (Currently amended) The method of claim 1, wherein information on the vibration of human tissue is provided by a ~~mechanical~~ sensor in contact with the skin.

10. (Original) The method of claim 1, wherein information on the vibration of human tissue is provided via at least one sensor selected from among at least one of an accelerometer, a skin surface microphone in physical contact with skin of a user, a human tissue vibration detector, a radio frequency (RF) vibration detector, and a laser vibration detector.

11. (Original) The method of claim 1, wherein the human tissue is at least one of on a surface of a head, near the surface of the head, on a surface of a neck, near the surface of the neck, on a surface of a chest, and near the surface of the chest.

12. (Currently amended) A method for removing noise from ~~electronic~~ acoustic signals, comprising:

~~detecting an absence of voiced information during at least one period, wherein detecting includes measuring the vibration of human tissue, wherein detecting the plurality of acoustic signals includes detecting using a plurality of independently located microphones;~~

~~receiving at least one noise source signal during the at least one period;~~

~~generating at least one transfer function representative of the at least one noise source signal;~~

~~receiving at least one composite signal comprising acoustic and acoustic noise signals; and~~

~~removing the noise signal from the at least one composite signal using the at least one transfer function to produce at least one denoised acoustic data stream~~

receiving two acoustic signals using two directional acoustic microphones positioned in two locations;

receiving a voice activity signal that includes information on vibration of human tissue associated with human voicing activity of a user;

generating a voice activity detection (VAD) signal using the voice activity signal;

generating at a transfer function representative of the ratio of energy of the acoustic signal received using the two acoustic microphones when the VAD indicates that user voicing activity is absent; and

removing acoustic noise from the acoustic signal of one of the microphones by applying the transfer function to the acoustic signal from that microphone and generating a denoised acoustic signal.

13. (Currently amended) The method of claim 12, wherein the at least one acoustic noise source signal includes at least one reflection of at least one associated acoustic noise source signal.

Claim 14 (Canceled).

15. (Original) The method of claim 12, wherein the human tissue is at least one of on a surface of a head, near the surface of the head, on a surface of a neck, near the surface of the neck, on a surface of a chest, and near the surface of the chest.

16. (Currently amended) The method of claim 12, wherein detecting includes use of a ~~mechanical~~ sensor in contact with the human tissue.

17. (Previously amended) The method of claim 12, wherein detecting includes use of a sensor selected from among at least one of an accelerometer, a skin surface microphone in physical contact with a user, a human tissue vibration detector, a radio frequency (RF) vibration detector, and a laser vibration detector.

Claims 18-20 (Canceled).

21. (Currently amended) The method of claim 12, wherein generating ~~at least one~~ transfer function comprises recalculating the ~~at least one~~ transfer function during at least one prespecified interval.

22. (Currently amended) The method of claim 12, wherein generating the ~~at least one~~ transfer function comprises calculating the ~~at least one~~ transfer function using at least one technique selected from a group consisting of adaptive techniques and recursive ~~technidques~~ techniques.

Claims 23-25 (Canceled).

26. (Currently amended) A system for removing acoustic noise from the acoustic signals, comprising:

~~at least one processor~~ a receiver that receives at least ~~one~~ two acoustic ~~signal~~ signals via at least two acoustic microphones positioned in a plurality of locations;

at least one sensor that receives human tissue vibration information associated with human voicing activity of a user;

~~at least one processor~~ a processor coupled among the ~~at least one~~ receiver and the at least one sensor that generates a plurality of transfer functions, wherein ~~at least one~~ a first transfer function representative of ~~the at least one acoustic signal~~ a ratio of energy of acoustic signals received using at least two different acoustic microphones of the at least two acoustic microphones is generated in response to a determination that voicing ~~information~~ activity is absent from the ~~at least one~~ acoustic ~~signal~~ signals for ~~at least one specified~~ a period of time, wherein acoustic noise is removed from the ~~at least one~~ acoustic ~~signal~~ signals using the first transfer function to produce ~~at least one~~ a denoised acoustic data stream streams.

27. (Currently amended) The system of claim 26, wherein ~~at least one~~ a second transfer function representative of the ~~at least one~~ acoustic ~~signal~~ signals is generated in response to a determination that voicing ~~information~~ activity is present in the ~~at least one~~ acoustic ~~signal~~ signals for the ~~at least one specified~~ period of time, wherein acoustic noise is removed from the ~~at least one~~ acoustic ~~signal~~ signals using at least one combination of the ~~at least one~~ first transfer function and the ~~at least one~~ second transfer function to produce the ~~at least one~~ denoised acoustic data stream.

28. (Original) The system of claim 26, wherein the sensor includes a mechanical sensor in contact with the skin.

29. (Original) The system of claim 26, wherein the sensor includes at least one of an accelerometer, a skin surface microphone in physical contact with skin of a user, a human tissue vibration detector, a radio frequency (RF) vibration detector, and a laser vibration detector.

30. (Original) The system of claim 26, wherein the human tissue is at least one of on a surface of a head, near the surface of the head, on a surface of a neck, near the surface of the neck, on a surface of a chest, and near the surface of the chest.

31. (Currently amended) The system of claim 26, further comprising:

dividing acoustic data of the ~~at least one~~ acoustic ~~signal~~ signals into a plurality of subbands;

generating a transfer function representative of the ratio of acoustic energies received in each microphone in each subband;

removing acoustic noise from each of the plurality of subbands using ~~the at least one first~~ a transfer function, wherein a plurality of denoised acoustic data streams are generated; and

combining the plurality of denoised acoustic data streams to generate the ~~at least one~~ denoised acoustic data stream.

32. (Currently amended) The system of claim 26, wherein the ~~at least one~~ receiver includes a plurality of independently located microphones.

33. (Currently amended) A system for removing acoustic noise from acoustic signals, comprising ~~at least one~~ a processor coupled among ~~at least one microphone~~ two microphones and at least one voicing sensor, wherein the at least one voicing sensor detects human tissue vibration associated with voicing activity of a user, wherein an absence of ~~voiced information~~ voicing activity is detected during ~~at least one~~ a period using the at least one voicing sensor, wherein at least one acoustic noise source signal is received during the ~~at least one~~ period using the ~~at least one microphone~~ two microphones, wherein the ~~at least one~~ processor generates ~~at least one~~ a transfer function representative of ~~the at least one noise source signal~~ a ratio of acoustic energy received by the two microphones during the period, wherein the ~~at least one microphone receives at least one~~ microphones receive composite ~~signal~~ signals comprising acoustic signals and acoustic noise signals, and the ~~at least one~~ processor removes the acoustic noise

signal from the ~~at least one~~ composite ~~signal~~ signals using the ~~at least one~~ transfer function to produce ~~at least one~~ a denoised acoustic data stream.

34. (Original) The system of claim 33, wherein the human tissue is at least one of on a surface of a head, near the surface of the head, on a surface of a neck, near the surface of the neck, on a surface of a chest, and near the surface of the chest.

35. (Currently amended) A signal processing system coupled among ~~at least one~~ a user and ~~at least one~~ an electronic device, wherein the signal processing system includes ~~at least one~~ a denoising subsystem for removing acoustic noise from acoustic signals, the denoising subsystem comprising ~~at least one~~ a processor coupled among ~~at least one~~ a receiver and at least one sensor, wherein the ~~at least one~~ receiver is coupled to receive ~~at least one~~ the acoustic ~~signal~~ signals via at least two microphones, wherein the at least one sensor detects human tissue vibration associated with human voicing activity of a user, wherein the ~~at least one~~ processor generates a plurality of transfer functions, wherein ~~at least one~~ a first transfer function representative of ~~the at least one acoustic signal~~ a ratio of acoustic energy received by the two microphones is generated in response to a determination that voicing ~~information~~ activity is absent from the ~~at least one~~ acoustic ~~signal~~ signals for ~~at least one~~ a specified period of time, wherein acoustic noise is removed from the ~~at least one~~ acoustic ~~signal~~ signals using the first transfer function to produce ~~at least one~~ a denoised acoustic data stream.

36. (Currently amended) The system of claim 35, wherein ~~at least one~~ a second transfer function representative of the ~~at least one~~ acoustic ~~signal~~ signals is generated in response to a determination that voicing ~~information~~ activity is present in the ~~at least one~~ acoustic ~~signal~~ signals for ~~at least one~~ a specified period of time, wherein acoustic noise is removed from the ~~at least one~~ acoustic ~~signal~~ signals using at least one combination of the ~~at least one~~ first transfer function and the ~~at least one~~ second transfer function to produce ~~at least one~~ a denoised acoustic data stream.

37. (Original) The system of claim 35, wherein the at least one electronic device includes at least one of cellular telephones, personal digital assistants, portable communication devices, computers, video cameras, digital cameras, and telematics systems.

38. (Original) The system of claim 35, wherein the human tissue is at least one of on a surface of a head, near the surface of the head, on a surface of a neck, near the surface of the neck, on a surface of a chest, and near the surface of the chest.

39. (Currently amended) A computer readable medium comprising executable instructions which, when executed in a processing system, remove acoustic noise from received acoustic signals by:

receiving at least ~~one~~ two acoustic ~~signal~~ signals;

receiving human tissue vibration information associated with human voicing activity of a user;

generating ~~at least one~~ a first transfer function representative of ~~the at least one acoustic signal~~ a ratio of energy of the acoustic signals upon determining that voicing ~~information~~ activity is absent from the at least ~~one~~ two acoustic ~~signal~~ signals for ~~at least one~~ a specified period of time; and

removing the acoustic noise from the at least ~~one~~ two acoustic ~~signal~~ signals using the ~~at least one~~ first transfer function to produce at least one denoised acoustic data stream.

40. (Currently amended) The medium of claim 39, wherein removing the acoustic noise from received acoustic signals further includes:

generating ~~at least one~~ a second transfer function representative of the at least ~~one~~ two acoustic ~~signal~~ signals upon determining that voicing ~~information~~ activity is present in the at least ~~one~~ two acoustic ~~signal~~ signals for ~~at least one~~ the specified period of time; and

removing acoustic noise from the at least ~~one~~ two acoustic ~~signal~~ signals using at least one combination of the ~~at least one~~ first transfer function and the ~~at least one~~ second transfer function to produce the at least one denoised acoustic data stream.

41. (Original) The medium of claim 39, wherein the human tissue is at least one of on a surface of a head, near the surface of the head, on a surface of a neck, near the surface of the neck, on a surface of a chest, and near the surface of the chest.

Claims 42-44 (Canceled).

45. (New) The method of claim 1, further comprising:

dividing acoustic data of the acoustic signals into a plurality of subbands;

generating a subband transfer function representative of the ratio of acoustic energies received in each microphone in each subband;

removing acoustic noise from each of the plurality of subbands using the subband transfer function, wherein a plurality of denoised acoustic subband signals are generated; and

combining the plurality of denoised acoustic subband signals to generate the denoised acoustic signal.

46. (New) The method of claim 12, further comprising:

dividing acoustic data of the acoustic signals into a plurality of subbands;

generating a subband transfer function representative of the ratio of acoustic energies received in each microphone in each subband;

removing acoustic noise from each of the plurality of subbands using the subband transfer function, wherein a plurality of denoised acoustic subband signals are generated; and

combining the plurality of denoised acoustic subband signals to generate the denoised acoustic signal.